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DSSD CENSUS 2000 PROCEDURES AND OPERATIONS MEMORANDUM SERIES #L-7

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#MM-7

MEMORANDUM FOR Howard Hogan
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Subject: Documentation of Undeliverable Rates for Census 2000

Introduction

This memorandum documents the undeliverable rates that will be calculated for Census 2000 by Decennial Statistical Studies Division (DSSD). The undeliverable rates will be calculated at the national level and for all local census offices. They will also be calculated for state, local, and tribal governments as appropriate. These undeliverable rates are only applicable to mailout/mailback enumeration areas.

The Census 2000 delivery strategy included an attempt to deliver some questionnaires that the United States Postal Service (USPS) was unable to deliver in certain pre-identified areas. This operation was conducted at the Local Census Office (LCO) level. All questionnaires designated undeliverable as addressed (UAA) by the USPS were checked in at an LCO up until a certain date. If a given housing unit was deemed eligible for a second delivery attempt, then LCO personnel made that attempt. UAA questionnaires for which delivery was not attempted or those that the LCO personnel could not deliver were checked out at the LCO and sent to the National Processing Center (NPC) in Jeffersonville for check-in.

Therefore, housing units with corresponding undeliverable questionnaires fall into two general categories, one of which is a subset of the other. The first category is the POSTAL UAA UNIVERSE. This refers to all housing units for which the USPS was unable to deliver the mailout/mailback questionnaire. The second category, the CENSUS UAA UNIVERSE, is a subset of the POSTAL UAA UNIVERSE. This refers to all housing units for which the USPS and LCO personnel were unable to deliver a questionnaire. Not all housing units were eligible for the attempted delivery by LCO personnel. If a given housing unit was not eligible but was still undeliverable according to the USPS, then it would qualify for the CENSUS UAA UNIVERSE.

Components of the Rates

To simplify the UAA rate definitions, let:

MAILOUT UNIVERSE =

Number of housing units (identification numbers or IDs) for which a census questionnaire was sent by mail with a request that the completed questionnaire be returned by mail. This includes housing units added late that had the opportunity to send back a questionnaire and housing units which were designated UAA by the USPS. (Housing units which were not eligible for the nonresponse followup universe are not included, unless a successful response was checked in for that housing unit at a Data Capture Center. Since these housing units must have successfully responded in order to be a part of this universe, it follows that these housing units would never be classified as UAA.)

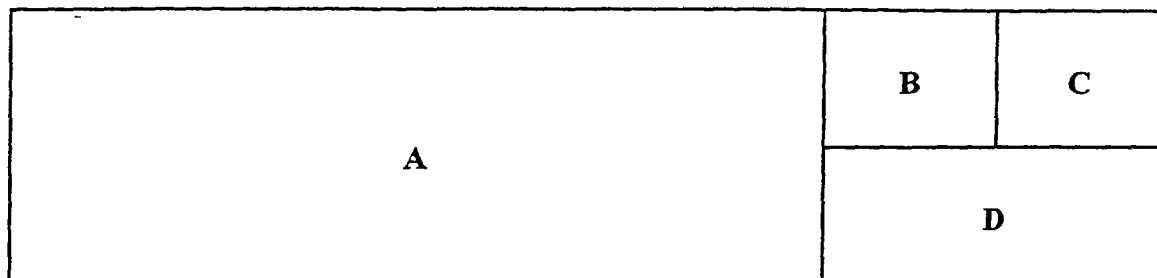
POSTAL UAA UNIVERSE =

Number of IDs in the MAILOUT UNIVERSE for which an English census questionnaire for that ID was checked in or checked out as being UAA at either the LCO, the NPC, or both. This universe includes all housing units that the USPS deemed undeliverable. The check-in status of a foreign language questionnaire (if it was requested) for a given housing unit has no effect on its inclusion in or exclusion from this universe.

CENSUS UAA UNIVERSE =

Number of IDs in the MAILOUT UNIVERSE for which an English census questionnaire for that ID was checked in as a UAA at the NPC or checked out as a UAA at the LCO. This universe includes all housing units deemed undeliverable as a result of both the USPS delivery attempt and the LCO delivery operation. Not all housing units are eligible for delivery by the LCO; those that were not but were classified UAA by the USPS are included in this universe. This universe excludes housing units for which questionnaires were successfully delivered by the LCO after the USPS failed in its delivery, while the POSTAL UAA UNIVERSE does not. Hence, the housing units counted toward the CENSUS UAA UNIVERSE are a subset of the housing units counted toward the POSTAL UAA UNIVERSE. The CENSUS UAA UNIVERSE represents the housing units in the mailout universe that did not have an opportunity to respond because they never received a questionnaire. Again, the check-in status of a foreign language questionnaire (if it was requested) for a given housing unit has no effect on its inclusion in or exclusion from this universe.

These universes are illustrated in the following set diagram, which as a whole represents the mailout universe:



A represents those housing units with no UAA designation. **B**, **C**, and **D** together represent the housing units designated UAA by the USPS. **D** represents UAA housing units that were not in the LCO delivery operation. **B** represents UAA housing units in the LCO delivery operation for which LCO delivery was successful. **C** represents UAA housing units in the LCO delivery operation for which LCO delivery was not successful.

Rate Calculation Formulas

We will calculate two undeliverable rates for Census 2000. A housing unit will not be counted more than once in the computation of any rate. The postal undeliverability rate refers to the percent of the mailout universe which the USPS determined to be undeliverable. The census undeliverability rate refers to the percent of the mailout universe that was identified as undeliverable with respect to both Census 2000 delivery operations (USPS delivery of questionnaires and LCO delivery of questionnaires) in mailout/mailback enumeration areas. The rates are calculated using the following formulas:

Postal Undeliverability Rate =

$$\frac{\text{POSTAL UAA UNIVERSE}}{\text{MAILOUT UNIVERSE}} * 100 = \frac{B + C + D}{A + B + C + D} * 100$$

Census Undeliverability Rate =

$$\frac{\text{CENSUS UAA UNIVERSE}}{\text{MAILOUT UNIVERSE}} * 100 = \frac{C + D}{A + B + C + D} * 100$$

Studies Related to the UAA Rates

Three Census 2000 evaluations which will be completed by DSSD relate to these UAA rates. Census 2000 Operational Summary A.6.a, "Study of the USPS Undeliverability Rates for Census 2000 Mailout Questionnaires," will document the rates described above at various levels of geography and study other characteristics of the UAA universes. The other related evaluations are Census 2000 Operational Summary A.7.a, "Study of Census 2000 Mailback Response Rates," and Census Operational Summary A.7.b, "Study of Census 2000 Mailback Return Rates."

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